



The Neuroscience Letter

20th Larc-Neuroscience Annual Meeting



The 20th meeting of the LARC-Neuroscience Network will be organized on Friday, November 25th, 2016, in Rennes by Pr **Thierry CHARLIER** and Drs **Colette VAILLANT-CAPITAINE**, **Elisabeth PELLEGRINI**, **Pascal COUMAILLEAU** and their colleagues of the Research Institute in Health, Environment and Occupation (IRSET-INSERM U1085). This meeting will be held at the Beaulieu Campus of the University of Rennes 1 (Rennes, France). We will have the pleasure to welcome Professor **Judith HOMBERG** (Donders Institute, the Netherlands) with the provisional title: "*Developmental perturbations in serotonin levels: molecular programming of development and behavior*" and Dr **Olivier RAINETEAU** (Stem Cell and Brain Research Institute INSERM, U1208, France) with the provisional title: "*Exploring and manipulating progenitors diversity in the postnatal forebrain*". Twelve communications authored by young and talented researchers from the different teams participating in the network will be selected for oral presentation. Other communications will be presented as posters and we will accommodate enough time to develop or strengthen discussion and collaborations amongst participants. More information will soon be available on the website <http://larc-neurosciences.org>. We are looking forward to seeing you all in Rennes!



Conference Jacques Monod

A Jacques Monod conference on 'Protein misfolding in disease - Toxic aggregation-prone proteins in aging and age-related diseases: from structure to pathology and spreading' will be organized by Dr **Luc BUÉE** at Roscoff (France), from September 12th to 16th, 2016. The conference will focus on protein misfolding in aging and diseases including Alzheimer's, Parkinson's, Huntington's and prion diseases. This meeting will follow on from the series of three previous meetings on protein misfolding and aggregation.

This time, the meeting will center around proteostasis, misfolding, spreading and potential for therapies and diagnosis. It will include multidisciplinary talks such as protein chemistry and structure, brain imaging, cell biology and pathophysiology. The program will include talks in which the research utilized model organisms (from *C. elegans* to non-human primates) and also those focused on *in vitro* research.

Main discussions will include protein misfolding and clearance, nature of the toxic species, definition of "prion-like" transmission and propagation. We will open up on innovative therapeutic strategies and potential targets for diagnosis.

For more information on the program and registration, [click here](#). Deadline for application is May 10th, 2016 (posters and oral communications). Contact: **Luc BUÉE** (luc.buee@inserm.fr).



Satellite meeting of RegPep2016

'Neuropeptides from Bench to Bedside, how to fight brain pathologies with neuropeptides'

A satellite meeting of RegPep2016 will be organized on July 11th, 2016, by Pr **Illana GOZES**, Dr **Oifa MASMOUDI-KOUKI** and Dr **Julien CHUQUET** on '*Neuropeptides from Bench to Bedside, how to fight brain pathologies with neuropeptides*'. Recent progress showing how neuropeptides can be instrumental to treat the brain will be presented and discussed through the following 3 mini-symposia: 1/ Common aspects of neuroprotection by neuropeptides; 2/ Brain disease-modifying treatment with neuropeptides; 3/ Translational approaches for brain treatment with neuropeptides. World experts including Prs **George REISER**, **Merab KOKAIA** and **Seiji SHIODA** will present their most inspiring research. We would like to invite you to submit an abstract of your work for oral presentation (20 min) or poster communication. Participation is free but registration is mandatory. To submit abstracts and register, please [click here](#). For more information, contact Dr **Julien CHUQUET** (julien.chuquet@univ-rouen.fr).

RegPep2016 Satellite Symposium

Neuropeptides from Bench to Bedside

How to fight brain pathologies with neuropeptides?

Rouen, Normandy, France July 11th 2016



Abstract submission for RegPep2016

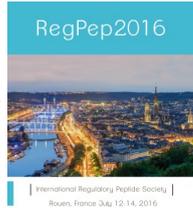
Registration and abstract submission to RegPep2016 that will take place in Rouen (France) from July 12th to 14th, 2016, are still open on the website of the meeting (www.regpep2016.fr). The deadline for abstract submission is April 26th. All information regarding this international meeting on bioactive peptides can be found in the News section of the website. A number of lectures will focus on the involvement of peptides in the field of Neurosciences.

Examples of lectures already programmed: **Jean-Louis NAHON** (France), *Brain inflammation-driven obesity and MCH network signaling*; **Seiji SHIODA** (Japon), *Neuroprotection and molecular mechanism of brain ischemia and spinal cord injury by PACAP*; **Fabrice MORIN** (France), *Modulation of autophagic activity by chemotactic GPCRs controls the invasive potential of glioblastoma cells mechanism in glioma*; **Luis DE LECEA** (USA), *Hypocretins in control of sleep transitions*; **Esther SABBAN** (USA), *Single prolonged stress rodent model reveals a role for NPY as a mediator, and a therapeutic target, in PTSD*; **Serge LUQUET** (France) *Hypothalamic agouti-related peptide-neurons control peripheral substrate utilization and nutrient partitioning*; **Hélène CASTEL** (France), *The chemokine vasoactive peptide Urotensin II: The dark face of chemokine and angiogenic factors in glioma*; **Zhian HU** (China), *Orexins, histamine and cognitive function* **Nese TUNCEL** (Turkey), *What type of cards are held by VIP for the future treatment of Parkinson's disease*.

Possibilities for additional oral presentations are still open in each session and a total of 52 communications will be selected from the abstracts for Junior and Senior speakers. Prizes will be awarded to encourage the participation of young investigators and we hope to welcome you all in Rouen next summer.

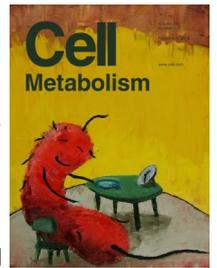
Prize

Dr **Jodi PAWLUSKI**, research associate with Prof **Thierry CHARLIER** at the Research Institute in Health, Environment and Occupation (IRSET-INSERM U1085) at the University of Rennes 1 (France), received the Young Investigator Award from the Brain and Behavior Research Foundation (formerly known as NARSAD). Her proposal entitled "*Perinatal SSRIs and social behavior; developmental trajectories and neurobiological correlates*" will investigate how perinatal serotonin selective reuptake inhibitor exposure to fluoxetine (Prozac), one of the most popular SSRIs used to treat maternal mood disorders, programs social behavior, notably via an early rewiring of the serotonergic system and a modulation of hippocampal plasticity.



Publications

J. Breton, N. Tennoune, N. Lucas, M. François, R. Legrand, J. Jacquemot, A. Goichon, C. Guérin, J. Peltier, M. Pestel-Caron, P. Chan, D. Vaudry, J.C. do Rego, F. Liénard, J. Pénicaud, X. Fioramonti, I.S. Ebenezer, T. Hökfelt, P. Déchelotte, and S.O. Fetissov. Gut commensal



***E.coli* proteins activate host satiety pathways following nutrient-induced bacterial growth.** In this paper published in *Cell Metab* (23: 1-11, 2016) a research team from the Inserm unit 1073 in Rouen and their collaborators describe a role of gut bacterial growth in regulation of host appetite. The authors show that underlying mechanisms may involve bacterial proteins acting locally in the gut as well in the brain. The study was highlighted in the cover of *Cell Metab* and by several editorials published in *Nature Rev Endocr*, *Nature Chem Biol* and *Science Signaling*.

J. Cano-Nicolau, C. Vaillant, E. Pellegrini, T.D. Charlier, O. Kah and P. Coumilleau. Estrogenic effects of several BPA analogs in the developing zebrafish brain. In this study published in *Frontiers in Neuroscience* (10: 24 March 2016; DOI: 10.3389/fnins.2016.00112), researchers from the Institute in Health, Environment and Occupation (IRSET-INSERM U1085) at the University of Rennes 1, show that bisphenol A and several of its analogs (BPS, BPF and BPAF) trigger modulation of aromatase expression (*cyp19b*) expression *in vivo* in the brain. Aromatase is used as a biomarker to detect estrogenic activity. While BPA is currently viewed as an endocrine disrupter, the potential estrogenic effects of the different substitutes *in vivo* are much less studied and there is currently no regulation on their use. The present study clearly suggests that BPS, BPF and BPAP have a similar estrogenic activity compared to BPA. In contrast, BPAP, another analog, presents no significant estrogenic activity using this model suggesting that this molecule could be used as an alternative.

Lamine-Ajili A, Fahmy AM, Létourneau M, Chatenet D, Labonté P, Vaudry D, Fournier A. Effect of the pituitary adenylate cyclase-activating polypeptide on the autophagic activation observed in *in vitro* and *in vivo* models of Parkinson's disease. In this study published in *Biochim Biophys Acta* (1862:688-695, 2016) researchers from INRS-Institut Armand-Frappier and Inserm Unit 982 show that the neuropeptide PACAP, in addition to its antiapoptotic effect, inhibits autophagy in *in vitro* and *in vivo* models of Parkinson diseases. This work done in the context of the International Associated Laboratory Samuel de Champlain illustrates the diversity of mechanisms of action of PACAP to mediate its neuroprotective effects.

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